

REMARKS

Claims 21, 27, 48 and 54 have been amended. Claims 21, 27 and 47-55 are pending. Applicant reserves the right to pursue the original claims and other claims in this and in other applications.

Claims 48 and 54 stand objected to for informalities. Applicant respectfully traverses the rejection. Claims 48 and 54 have been amended to overcome the objection. Accordingly, the objection should be withdrawn.

Claims 21, 27, 47, 49, 53 and 55 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,188,094 ("Kochi"). Applicant respectfully traverses the rejection.

Claim 21 recites a light detecting system comprising, in part, "a substrate having a plurality of photosensitive regions; and a substantially planar microlens array formed over said plurality of photosensitive regions . . . said microlens array being formed over said photosensitive regions without a light-shielding layer between said microlens array and said photosensitive regions."

Kochi is directed to a solid-state image pickup device. (Kochi, Abstract). Figure 1 of Kochi discloses a device having a semiconductor substrate 101, an insulating layer 103 formed on a photoelectric conversion element 102, an aluminum light-shielding portion 105 formed on top of the insulating layer 103, a leveling layer 107 and a microlens layer 108. (Kochi, FIG. 1; col. 1, lines 25-40). Unlike the device of Kochi, the claimed invention, as shown in FIG. 4, does not have a light-shielding layer between the microlens array 112 and the photosensors 124. Particularly, Kochi does not disclose, teach or suggest "said microlens array being formed over said photosensitive regions without a light-shielding layer between said microlens array and said photosensitive

regions.” Therefore, Applicant respectfully requests that the rejection of independent claim 21 and dependent claims 47 and 49 be withdrawn and the claims allowed.

Claim 27 recites an integrated circuit comprising, in part, “a substrate having a plurality of photosensitive regions; a microlens array formed over said plurality of photosensitive regions . . . said microlens array being formed over said photosensitive regions without a light-shielding layer between said microlens array and said photosensitive regions.” For the reasons set forth above, Applicant respectfully requests that the rejection of independent claim 27 and dependent claims 53 and 55 be withdrawn and the claims allowed.

Claims 48, 50 and 54 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kochi. Applicant respectfully traverses the rejection.

Claims 48 and 50 depend from claim 21 and therefore, contain all of the limitations of claim 21. Claim 54 depends from claim 27 and therefore, contains all of the limitations of claim 27. As such, claims 48, 50 and 54 recite, in part, “said microlens array being formed over said photosensitive regions without a light-shielding layer between said microlens array and said photosensitive regions.” As mentioned earlier, Figure 1 of Kochi fails to disclose, teach or suggest these limitations. The Office Action relies on Figures 2 and 3A of Kochi to teach that the first index of refraction is less than the second index of refraction, and to teach a color filter formed over a second light conductor. (Office Action, p.4). Figures 2 and 3A of Kochi fail to cure the above-noted deficiencies. Because Kochi fails to teach or suggest all of the elements of claims 48, 50 and 54, Applicant respectfully requests that the rejection of the claims be withdrawn and the claims allowed.

Claim 51 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kochi in view of alleged Acknowledged Prior Art ("APA"). Applicant respectfully traverses the rejection.

Claim 51 depends from claim 21 and therefore, contains all of the limitations of claim 21. As such, claim 51 recites, in part, "said microlens array being formed over said photosensitive regions without a light-shielding layer between said microlens array and said photosensitive regions." As mentioned earlier, Kochi fails to disclose, teach or suggest these limitations. The alleged APA which has been cited as teaching a color filter formed below a first light conductor does not cure the deficiencies of Kochi. Because the cited references, individually or in combination, fail to teach or suggest all of the elements of claim 51, Applicant respectfully requests the 103(a) rejection be withdrawn and the claim allowed.

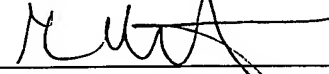
Claim 52 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kochi. Applicant respectfully traverses the rejection.

Claim 52 depends from claim 21 and therefore, contains all of the limitations of claim 21. As such, claim 52 recites, in part, "said microlens array being formed over said photosensitive regions without a light-shielding layer between said microlens array and said photosensitive regions." As mentioned earlier, Kochi fails to disclose, teach or suggest these limitations. Therefore, Applicant respectfully requests the 103(a) rejection be withdrawn and the claim allowed.

In view of the above, Applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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